PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/JP2004/019838	28.12.2004	08.01.2004

International Patent Classification (IPC) or both national classification and IPC
G06F11/14, G11B19/04

Applicant
MATHUSHITA ELECTRIC INDUSTRIAL CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notifed the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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ATTACHMENT F

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/JP2004/019838

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material:

   ☐ a sequence listing

   ☐ table(s) related to the sequence listing

   b. format of material:

   ☐ in written format

   ☐ in computer readable form

   c. time of filing/furnishing:

   ☐ contained in the international application as filed.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 11,12

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination *(specify)*:

☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. are so unclear that no meaningful opinion could be formed *(specify)*:

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the whole application or for said claims Nos. 11,12

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form ☐ has not been furnished

☐ does not comply with the standard

the computer readable form ☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-10,13-16
	No:	Claims	
Inventive step (IS)	Yes:	Claims	1-10,13-16
	No:	Claims	
Industrial applicability (IA)	Yes:	Claims	1-10,13-16
	No:	Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

V. REASONED STATEMENT UNDER RULE 43bis1(a)(i) WITH REGARD TO NOVELTY, INVENTIVE STEP AND INDUSTRIAL APPLICABILITY; CITATIONS AND EXPLANATIONS SUPPORTING SUCH STATEMENT

1. The following documents (D1/D2), of which D1 is considered to represent the closest prior art teaching, are mentioned for the first time in this written opinion; the numbering will be adhered to in the rest of the procedure:

   D1: US2001/008016 (KOTANI SEIGO ET AL) 12 July 2001 (2001-07-12)
   D2 : EP1 158 410 A (SONY CORP.) 28 November 2001 (2001-11-28)

2. The invention relates to an improved content management technique for allowing a user to perform legal duplication of copy-protected contents stored in a portable medium for restoration of said contents in case of the portable medium fails.

   This is attained by a content management apparatus, which, in the event of a backup being requested to prepare for a content restoration, duplicates the contents of a first portable medium into a content storage within said content management apparatus, whereby a unique medium identifier associating said content with said first portable medium is also stored in a management table within said content management apparatus, whereby a restore unit duplicates the contents of the content storage unit into a replacement portable medium and replaces the original portable medium identifier in the management table with the medium identifier of the replacement portable medium; whereby, in the event of a reproduction apparatus attempting to reproduce said content stored in said portable medium, a reproduction judgement information based on said medium identifier of said management said management table is transmitted to the reproduction apparatus, which on the basis of said medium identifier judges a permission/denial to reproduce said contents.

   The closest prior art US2001/008016 teaches a content management system for preventing unauthorized duplication of copy-protected content by storing on a storage medium an encrypted content, encrypted licensing information involving a decryption key for decrypting said encrypted content and a secure storage-medium-specific number, which has been used for encrypting said licensing information. A backup

copy of the license information is used to restore the original license information by decrypting the backup license information using said secured medium-specific number, whereas use of illegal copies of the storage medium is impossible as the decryption of the licensing information is impossible without knowledge of the secured medium-specific number, thus, also rendering decryption of the encrypted content impossible.

The invention differs from US2001/008016 in that:
(i) the medium identifier is used to associate a content with a freely selectable "owning" portable storage medium, whereas US2001/008016 uses said medium-specific number to encrypt/decrypt an content encrypting key (license information);
(ii) the medium identifier being stored in a separate management table, whereas US2001/008016 teaches the storage of the medium-specific number on the storage medium itself;
(iii) the means for transmitting reproduction judgement information based on said management table to a reproduction apparatus for judging of permission to reproduce the content of a portable medium by said reproduction apparatus based on the medium identifier of said management table, which medium identifier associates the content with a specific portable medium, is not at all mentioned by US2001/008016.

Based on the aforementioned features (i), (ii) and (iii) distinguishing the invention from the content management system taught by the closest prior art teaching US2001/008016, the objective problem solved by the invention can be formulated:

How to provide for an improved content management technique, which more reliably prevents illegal duplication of copy-protected content, while also simplifying the backup and restore process for the user and which also allows for a simple content reproduction authentication on portable reproduction devices?

In effect, the invention allows the user to prepare for a restoration of copy-protected contents by performing a backup in advance onto a content storage. Furthermore, a reliable reproduction authentication based on the current medium identifier in the management table prevents reproduction from more than one single portable

medium, namely, that identified in the management table - thereby providing a protection against illegal duplication by making unauthorized multiple duplication meaningless. Accordingly, the duplication protection is fundamentally different to that of US2001/008016 in that it is based on a reproduction authentication rather than controlling the backing up of the content, thereby simplifying the backup process, while also allowing for a reliable illicit duplication protection .

The proposed duplication protection using a reproduction authentication permission technique based on a medium specific identifier associated with the content to be reproduced is neither known from nor fairly suggested by any available prior art teaching.

Consequently, for the reasons given above, the subject-matter of the independent claims 1, 8, 9, 10, 13, 14, 15 and 16 of the international application, all of which reflect the overall inventive concept of the invention as described here above, with due account taken of the clarity objections raised in section VIII below, is considered to meet the requirements of Articles 33(2) and 33(3) PCT concerning novelty and inventive step.

As the examined independent claims, while being directed to different interrelated products, namely, to the backup/restoration process (claims 1,9,13,15) and to reproduction process (claims 8,10,14,16), respectively, are all based on the aforementioned single inventive concept, the requirements of Rule 13 PCT concerning unity of invention are met.

VII. CERTAIN DEFECTS IN THE INTERNATIONAL APPLICATION

1. In order to meet the requirements of Rule 5.1(a)(ii) PCT, the documents D1 and D2 should be identified in the description of the international application and the relevant prior art therein should be briefly discussed.

2. In order to meet the requirements of Rule 6.3(b)(i) and (ii) PCT, the independent claims should be properly cast in the two-part form using the wording "characterized by", with those features forming part of the prior art being placed in the preamble.

3. In order to meet the requirements of Rule 6.2(b) PCT, reference numerals should, where appropriate, be introduced in the claims to increase their intelligibility.

4. The reference to a prior art documents on page 7, lines 17-20 of the international application is in violation of Rule 5.1(a)(ii) PCT. In particular, the wording "[...] specification, drawings and claims is incorporated herein by reference in its entirety" is objected against. According to the general sense of said Rule 5.1(a)(ii) PCT, any specific matter of a prior art document, which is regarded as important background art for the invention, shall be included explicitly in the description. The aforementioned wording must, thus, be deleted.

   Moreover, the document referred to in the aforementioned passage is not identified by unambiguous and publicly traceable bibliographic data. Accordingly, said documents should each be identified by means of a publicly traceable bibliographic reference.

5. The following clerical mistakes, which have been noted in the international application, need be remedied:
   - the term "backuping", as used throughout the specification and the claims of the international application, should be replaced by the term "backing up";
   - the term "backuped", as used throuhgout the specification and the claims of the international application, should be replaced by the term "backed up";
   - page 5, line 29: the word "includes" should be replaced by the word "include";
   - claim 1, lines 4-5: the term "the first portable medium" suggests that a term is being referred to, which has previously being defined in said claim. However, it is clear that the mentioning of said term "first portable medium" on lines 4-5 of claim 1 is the first reference to said term in the claims. Accordingly, said wording "the first portable medium" should be replaced by the wording "a first portable medium".

VIII. CERTAIN OBSERVATIONS ON THE INTERNATIONAL APPLICATION

1. A first clarity objection is raised for the reason that the present set of claims of the international application comprises more than one independent claim in any one claim category, namely, four independent claims (claims 1,8,15,16) in the apparatus

category, two independent claims (claims 9,10) in the method category and two independent claims (claims 13,14) directed to a software program product (computer readable storage medium).

The different definitions of the invention given in said various independent claims are such that the claims as a whole are not clear and concise, contrary to Article 6 PCT.

This opinion follows to the fact that the various definitions of the invention given in the plurality of independent claims, where said independent claims define distinct sets of technical features, result in that the claims as a whole are not clear and concise and leave the reader in doubt as to what are in fact the essential features of the invention and, hence, the primary purpose of Article 6 PCT is not satisfied. Moreover, lack of clarity arises since the plurality of independent claims makes it difficult, if not impossible, to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of protection.

In the present case it would be appropriate to use a set of claims defining the relevant subject-matter in terms of one independent claim in each claim category, followed by dependent claims covering the features, which are merely optional, Rule 6.4 PCT.

2. A second clarity objection is raised for the reason that none of the present independent claims 1, 8, 9, 10,13,14,15 and 16 defines all technical features considered essential to the performance of the invention, Article 6 PCT:

2.1. The wording of the final paragraph of the independent claims 1, 9, 13 and 15 of the international application, which is directed to define a management table processing unit [a method step] for transmitting reproduction judgement information to a reproduction apparatus does not unambiguously define that said information is transmitted to the reproduction apparatus when said reproduction apparatus attempts to reproduce the contents stored in said portable medium.

However, it is clear from the overall understanding of the functioning of the invention as perceived from the specification as a whole that relating the transmission of said

reproduction judgement information to the attempt by said reproduction apparatus to reproduce said contents stored in the portable medium is essential to the performance of the invention. Accordingly, as the independent claims 1, 9, 13 and 15 fail to unambiguously define such a relation, it follows that the present independent claims 1, 9, 13 and 15 do not meet the requirement following from Article 6 PCT, that each independent claim must define all technical features considered essential to the performance of the invention.

The same objection also applies to independent claims 8, 10, 14 and 16 of the international application, which claims also fail to define a technical feature unambiguously relating the request for transmission of reproduction judgement information, as well as the actual transmission of said reproduction judgement information, to the event of an attempt by the reproduction apparatus to reproduce said content stored in the portable medium. Accordingly, also not the independent claims 8, 10, 14 and 16 of the international application meet the requirement following from Article 6 PCT, that each independent claim must define all technical features considered essential to the performance of the invention.

In order to overcome the aforementioned objection, the independent claims 1, 8, 9, 10, 13, 14, 15, and 15 should be amended to define that the reproduction judgement information / reproduction judgement information request is/are transmitted in response to an attempt by the reproduction apparatus to reproduce the contents of the portable medium.

2.2. It is clear from the overall understanding of the functioning of the invention as perceived from the specification as a whole that the judgement of permission to reproduce the content stored in the portable medium is evidently specifically based on and also specifically dependent on the medium identifier stored in the management table. However, the independent claims of the international application merely define that the judging of a permission is based on the management table, which may or may not comprise other types of information. In order to unambiguously define the functioning of the invention, so as to allow the skilled person to carry out the same, it is deemed as essential to specifically define that said judging of permission to reproduce the content of the portable medium is based on the medium

identifier stored in said management table.

As the independent claims 1, 8, 9, 10, 13, 14, 15 and 16 of the international application fail to accurately and in an unambiguous manner define that said judging of permission to reproduce said content stored in the portable medium is specifically based on the medium identifier stored in said management table, it follows that the requirement following from Article 6 PCT, that each independent claim must define all technical features considered essential to the performance of the invention, is not met.